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THE UNIVERSITY OF ALBERTA

THE LEISURE INVOLVEMENT OF TEACHING AND NON-TEACHING ORIENTED STUDENTS

by

© MARIE HOFFMANN

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled THE LEISURE INVOLVEMENT OF TEACHING AND NON-TEACHING ORIENTED STUDENTS submitted by Marie Hoffmann in partial fulfilment of the requirements for the degree of Master of Art.

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ABSTRACT

The purpose of this study was two-fold: first was the investigation of college students' participation in, and enjoyment of, their leisure time activities, and second, the distribution of five selected criterion variables (intellect, creativity, aesthetics, sociability, and physical activity) and their relationship to these leisure time activities. A questionnaire entitled the "Leisure Involvement Survey" was designed to obtain evidence about the current leisure involvement of university students.

The sample was limited to 100 males and 100 females, of whom 50 males and 50 females were oriented toward teaching careers, and 50 males and 50 females toward non-teaching careers. Each group of 50 subjects contained 17 Physical Education students, 17 Arts students and 16 science students.

The main hypothesis of the study was that there would be significant difference between males and females, and between teaching-oriented and non-teaching-oriented students, when certain selected factors were statistically analyzed, and that these differences would be useful in identifying the current leisure involvement of students. Seven problem areas were identified and stated as null hypotheses. The main hypothesis was tested by applying statistical tests to the seven null hypotheses.

It was concluded, that within each group of males, females, teaching-oriented, and non-teaching oriented students there existed significant relationships between the leisure activities most often done and those most enjoyed. Significant differences existed between the five selected criterion variables in terms of these leisure involvements. There were no significant differences between males and females or between teaching-oriented and non-teaching-oriented students in the sequence of frequency of the most often done activities and in the sequence of the most enjoyable activities. One exception, a significant difference between males and females in the sequence of the most enjoyable activities, however, was detected.

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CHAPTER I

STATEMENT OF THE PROBLEM

I. INTRODUCTION

What is meant by the terms "leisure", "leisure activity", and "education for leisure"? Aristotle answers the first two questions: "Leisure is the first principle of all actions... leisure and work are required, but leisure is better than work and is its end" (Nash, 1965:245), i.e., "leisure is the state of being in which activity is performed for its own sake" (Kraus, 1971:254). Leisure, as defined classically, is a more positive concept, than some recent ones, which are influenced by attempts to define leisure as a thing opposed to work. People have generally adopted the latter approach. The prejudice involved here is the outcome of overvaluing the sphere of work as "good". On the other hand, leisure is often considered to be a waste of time, and close to laziness or boredom. The danger for leisure lies in not knowing how to use it well. People not only do not know what to do with their leisure, but they are also trying to avoid it. However, "leisure is a total mode of living" (Scott, 1973:3). To live, and to participate in, leisure does not necessarily mean spending a great

amount of money, or the mere using of a lot of free time. Ability for leisure life exists in the psychological condition of each individual. It has been recognized, that the main obstacle for psychological freedom lies in the fear of situations requiring choice. To choose means to accept both responsibility and freedom; however, most people prefer to live incognito, not only in relation to others, but also, in relation to themselves. To be the same, to act and look in the same way, ostensibly to possess the same things are emphasized as typical characteristics of the people living in the North American continent.

The main task of the education for leisure is to bring forth an individuality which contains both the sense of freedom and responsibility. This can be realized through a change of attitudes and a re-evaluation of the values put upon life and the world. As Anderson (1973:3) points out, "to accomplish this goal we need more students with a philosophy of 'education for leisure' to enter the teaching profession."

In contemporary society only a small percentage participate in leisure regularly. For those to whom work is nothing else but a source of money in order to survive, leisure is also identified with time.

II. THE PROBLEM

The purposes of this study are:

A. To determine whether or not differences in leisure involvement exist between students preparing themselves for a teaching profession and those interested in non-teaching careers.

B. To determine whether or not such differences exist as a function of the person's sex.

C. To determine whether or not these differences, if they exist, are a function of the five selected criterion variables, i.e., intellect, aesthetics, creativity, sociability, and physical activity.

D. To determine whether or not the leisure activities most frequently done are also the ones most enjoyed.

E. To test the following hypotheses:

1. There is no significant difference between students oriented toward a teaching profession and those interested in non-teaching careers, or between males and females, in leisure involvement for both leisure activities and certain categories of these leisure activities:

2. There is no significant difference in the sequence of frequency of participation in the leisure activities between males and females and between teaching-oriented and non-teaching oriented students:

3. There is no significant difference in the sequence of importance of the five selected criterion variables assigned to the most frequently done leisure activities between males and females, or between teach-

ing and non-teaching oriented students:

4. There is no significant difference in the sequence of the most enjoyable activities between males and females or between teaching and non-teaching oriented students:

5. There is no significant difference in the sequence of importance of the five selected criterion variables assigned to the most enjoyable activities between males and females, and between teaching and non-teaching oriented students:

6. There is no significant difference between the sequence of frequency of participation in the leisure activities and the sequence of activities most enjoyable, for males, females, teaching oriented, and non-teaching oriented students:

7. There is no significant difference in the sequence of importance of the five selected criterion variables between the leisure activities most often done and the most enjoyable leisure activities for males, females, teaching-oriented, and non-teaching oriented.

III. IMPORTANCE OF THE STUDY

There is a constant conflict in present educational thought as to the professional orientation that should be taken toward leisure. It is not that leisure education

requires new values, but rather different ones, or at least a different priority listing. Because each person has his own preferences in values as well as in activities, future educators should be able to provide the widest range of activities to children in order to allow a reasonable base for free time for optimal living. Some analysis, then, of the actual leisure involvement of young college adults would seem to be pertinent.

IV. LIMITATIONS

1. The sampling of subjects was limited to 100 male and 100 female students at the University of Alberta. They were drawn from the faculties of Arts, Science, and Physical Education.

2. The professional orientation of the subjects was limited by whether or not they intended to pursue teaching or non-teaching careers.

V. DEFINITION OF TERMS

Leisure is the state or condition of being free from the urgent demands that are required organically for existence and subsistence.

Leisure involvement is the amount of participation in leisure activities.

Leisure activities are those activities as listed in the Leisure Involvement Survey (see Appendix A, Part C).

Categories of leisure activities are Outdoor Activities, Sports Activities, Cultural Activities, Social Activities, and Associative Activities.

Outdoor Activities are all kinds of activities by which man is closely approaching Nature. In opposition to Sports Activities, Outdoor Activities do not include a highly competitive aspect or rigid rules.

Sports Activities are highly organized and competitive physical activities.

Cultural Activities are relating to the artistic and intellectual aspects or content of human activity and are developing and cultivating individual's mind, faculties, manners, etc.

Social Activities are characterized by a "relationship with a minimum of content other than interest in persons" (Kaplan, 1960:180).

Associative Activities are characterized by a content of common interest, that is more important than in interest in specific people.

The most often done leisure activities are the three leisure activities in which subjects participate most frequently during the summer, and the three leisure activities in which subjects participate most frequently in winter. The total of the six leisure activities is assigned to one, two or three categories of leisure activities. The summer and winter leisure activities are not necessarily different (see Appendix A, Part D.1 and 2).

The most enjoyable leisure activities are the three leisure activities in summer and the three leisure activities in winter, which are most enjoyed by participants with no consideration for frequency of participation.

The selected criterion variables are Intellect, Aesthetics, Creativity, Sociability, and Physical Activity.

Intellect is seen as the capacity for knowing, conceptual thinking, and cognitive ability.

Aesthetics is beauty in its broadest sense.

Creativity is a new combination of ideas and images based on the knowledge one has of a stimulating event with that of his relationship to it.

Sociability is the tendency to seek the company of the people.

Physical Activity is "non-utilitarian (in an occupational or maintenance sense) gross human movement, usually manifested in active games and sports" (Loy and Kenyon, 1969:72).

Teaching and oriented students are students who intend to pursue teaching careers.

Non-teaching oriented students intend to pursue careers other than teaching.

Main groups are teaching oriented students of both sexes (T), non-teaching oriented students of both sexes (N), teaching and non-teaching oriented males (M), and teaching and non-teaching oriented females (F).

Subgroups are teaching oriented males (TM), non-teach-

ing oriented males (NM), teaching oriented females (TF), and non-teaching oriented females (NF).

CHAPTER II

REVIEW OF THE LITERATURE

I. LEISURE IN CANADA

Leisure, as an expression of the individual's freedom, was the main issue at the Montmorency Conference on Leisure in 1968; this phenomena was viewed from various viewpoints.

Farina supported the basic Aristotelian position that

> ...leisure is a state of being, a state of being free and not simply a state of being free from the work or compulsion, but the state of being free 'too'. Free to be myself, free to be a human being, to be... everything that I have the potential to be.... The concept of leisure is a personal concept. What I am suggesting is the plea for greater individuality (1969:3).

This direction is followed by many other Canadian theoreticians of leisure. Beach (1971:112) views leisure as "a state or condition in which man can be everything he is capable of becoming." Scott (1973:2) gives a concept of leisure as a "total mode of living". There is also agreement about the necessity of changing values and attitudes toward life in general, and toward leisure in particular (Montmorency Conference on Leisure, 1969; Beach, 1973; Anderson, 1973). The Montmorency Conference on Leisure (1969:101-104) came to the conclusion that there is a conflict in current education between work and leisure orientations.

It also set up characteristics of a new man, who would reach his potential in leisure. He must be: autonomous and independent, conscious and well informed, responsible, involved in participating, happy and satisfied, interested in his work without making a God out of it, interested in the consumption goods, without seeing them as end in themselves, pluralistic and tolerant, personal but not egoistic.

Beach (1973:5) adds another very important characteristic: "the capacity to choose, and to choose in terms which will manifest their own values through self-expression." In order to enable the individual to make the 'best' choices, education must provide him with a wide background of activities.

The Montmorency Conference on Leisure (1969) also discussed the necessity of the future planning and research in Canada. Pearson (1969:77) pointed out that "environmental planning in Canada is based on some peculiar and inadequate research." He has criticized the lack of research institutions, and, subsequently, the lack of needed data. "It is not good enough to simply assume that the patterns found in the U.S.A. apply to Canada" (Pearson, 1969:1).

Between 1967 and 1968, the Department of Youth of the Government of Alberta conducted research on leisure in Alberta. Hobart's (1969:76-95) analysis of these data made the research findings accessible to the public. Alberta residents are more work oriented than leisure oriented, and therefore more production than consumption and enjoyment

oriented. Their leisure activities are rather inexpensive, i.e., low income does not appear as an important obstacle. Also their expectation of participation in the leisure activities in their future is quite unimaginative, i.e., "more of the same". The passive activities dominate those active and artistic ones. However, younger and better educated people are more leisure oriented, than older and less educated people, and they show new interest in active sport participation, education, culture and travelling.

II. EDUCATION FOR LEISURE

In spite of the fact that leisure is an old concept originating in old Greece, there has never been a period in the world history in which the problem of education for leisure has been as widespread as it is in the contemporary one. Many writers have assumed that education for leisure, as well as education in general, should be understood rather in terms of seeking knowledge and changingness, than in terms of "static knowledge" (Rogers, 1969:418-33; Brightbill, 1960:50). Lehman and Witty (1927) point out that each age period has its special interests; therefore, they also emphasize continuity of education instead of its periodicity. Robbin's (1973:8) appeal for an education for leisure, where he eliminates the idea of continuity, is to "educate for now". Man's life cannot be completely in the past, the present, or the future; a creative life takes its roots from

all three. Educators must look more at the person's natural inclinations as at the point of departure for helping him to develop skills and new interests. Leisure choices, skills, attitudes, values and beliefs are much a matter of training; they are learned, not inherited. The present education seems to be exclusively oriented toward the future; consequently, it misses many opportunities by not paying enough attention to current interests.

Brightbill (1960:142-43) has presented some guidelines for the stimulation of motivation in the education for leisure: freedom of choice, appeal to the emotions as well as to the intellect, and intelligibility of the objectives. Listing the kinds of appreciations, interests, and skills, which each individual should develop and for which the appropriate opportunities should be provided, Brightbill (1960:116-17) includes those, that: (a) help to develop strong spiritual base, (b) sharpen abilities to communicate, (c) aid to body development, movement, and motor coordination, (d) contribute to safety and survival, (e) makes use of creative hands, as in certain arts, (f) take person deep into literature, (g) bring individual close to nature, (h) create or enjoy music, (i) provide the opportunity to express oneself through drama in a variety of forms, (j) open scientific world to the public, and (k) encourage people to be of service to others.

In summary, education for leisure should take into consideration the individual differences concerning the

abilities and interests of people and the evolution of these differences during their life spans.

III. LEISURE ACTIVITIES AND SELECTED CRITERION VARIABLES

Man is naturally active, both physically and mentally, and he engages voluntarily in many different activities. Whether or not something is leisure activity depends upon the motive or incentive of the individual, enjoyment, personal satisfaction and the doing of it has its own appeal. Rewards, such as gaining knowledge, meeting new friends, and improving one's health are usually, but not always, the result of the activity in question.

According to Havighurst (1957:152-62), the significance of leisure activities is more closely related to individuality, than to the social variables of sex, age, and social class. Leisure, as an aspect of personality, is a response to individual's needs, and it is one of the ways of people's expression of themselves. The ways of leisure may either integrate or disintegrate personality, while, conversely, the degree of integration of personality affects the choice of leisure activities. Brightbill (1966:56-7) is preoccupied with the harmony of man's seeing, smelling, hearing, feeling and tasting abilities. This viewpoint sees each individual as having an awareness of life, and it pictures the classical form of integration.

In Camus' (1965:13-14) interpretation, travel is connected more with fear, than with pleasure. It is a spiritual testing bringing us back to ourselves. However, travel brings us also back to nature. Brightbill (1960: 57-65) stresses the beauty of nature; he sees nature as being the source of all beauty, i.e., beauty's permanent repository. Thoreau (1960) also found solitude in nature and others have found in it a great source of companionship.

Art is another source of beauty, and, though it is problematical to expect everyone to be creative, or to produce beauty, it is certainly possible for everyone to seek, and to find enjoyment of it. To create beauty is a joyous experience, and its sharing brings personal satisfaction and accomplishment. Brightbill (1966:53) put highest value on the "sharing aspect of art". The degree to which rules or creative traditions are sources of leisure, Kaplan identifies with games, sports and arts. Kaplan (1960:26) lists six types of leisure activities: sociability, association, games and sports, art, movement, and immobility. Sociability and association express degree, to which people, or their interests, are sources of leisure. His concept of movement and immobility is very interesting because of the values which are placed upon it:

> Television relates the viewer to exact time; it conditions him to half-hour periods, with pauses in between for commercials. There is a security that comes from alternations of concentration and release or relative confinement and freedom. But the intellectual is accustomed to long periods of concentration. The traveller is related to horizontal time. He is

> free of T.V. schedules and even of his home and work routines. But even though he may tend to forget the day of the week or hour of the day, he is conscious of his ties to the routines of others (time when stores are open, motels are filled and so on). The reader is the freest of all, for he is related to vertical or universal time. He is free not only of T.V. schedules, but, within the content of his reading, free even of his culture, his century, or the earth, space, and time itself (Kaplan, 1960:227).

Undoubtedly, there is a large variety of leisure activities, and individual perception and evaluation of these activities varies even more. Movement as a leisure activity is a major concern of the entire world. According to Toffler (1970:85):

> Freedom from fixed social position is linked so closely with freedom from fixed geographical position, that when super-industrial man feels socially constricted, his first impulse is to relocate.... A lot of problems are solved by migration.

Movement is one of those activities, in which a person expresses himself. Loy and Kenyon (1969:73-77) view physical activity as a social experience, a search for health and fitness, the pursuit of vertigo, and aesthetic experience, catharsis and an escetic experience. Brightbill's (1966:89-90) observations of the utilization of physical activities as an instrument in medical and rehabilitation settings reported patients as broadening their horizons, improving their personalities, and as improving on their physical and emotional performances. Such a play approach is especially effective with neurotics, because there appears to be a viable connection between muscular artifacts and emotional tension.

The element of a play approach is related to the element of company. - Neumayer and Neumayer (1958) point out that the enjoyment of leisure activities is enhanced by the element of company. They go even further by claiming that most of man's activities are tightly connected with group life. Toffler (1970:108) also expects people to be able to form close friendships on the basis of common interests. Sessoms has stated that:

> Recreation, socialization, and mental health are permanently interwoven. Recreation choices are in index of mental health and the result of socialization; in turn, socialization and mental health are by-products of recreation and play (1966:48).

IV. LEISURE INVOLVEMENT AND RELATED RESEARCH

Related to the stated hypotheses in this study are those studies on psychological variables, sex differences, and occupational differences which stress the teaching profession as expressed throughout leisure.

These studies, while varying in the amount of stress placed on psychological variables, such as attitudes, needs, values and interests, have one thing in common: they all deal with the individual differences.

As for the first variable, attitude, Clawson (1959) has stressed that leisure itself can only be defined on the basis of the attitude with which it is undertaken. Riddle (1968) concluded that students, given their free choice of physical education activity experiences, choose activities

according to their personality needs. Kraus (1971) describes the recreation and human values in terms of emotional aspects, social values, and intellectual growth. Havighurst and Feingenbaum (1959) in their study of "Leisure and Life - Style", evaluated adult's favorite activities on the basis of many factors. The following seven were treated as signifying a higher role performance: autonomy, creativity, enjoyment, instrumentation or expressiveness, ego integration or role diffusion, vitality or apathy, and expansion or construction of interests. Krakow (1968) concluded that boys with varying academic interest also have varying recreational interest.

As for sex differences, Nelson (1970) points out that men place a higher value on theoretical, economic, and political concerns, while women emphasize aesthetics. Bachtold and Werner (1970) concluded that in an assignment on creative thinking, boys scored higher in fluency and flexibility on tasks requiring evaluative thinking. Wonneberger (1968) claims that a smaller percentage of women than of men participate in organized and individual sport's activity. However, there exist quantitative differences in their participation in the various forms of sports, games and tourism. Harris (1962) concluded that the recreational activities with high preference for both sexes were card games, fishing, swimming, social dancing, bowling and photography. Men participated more in card games, fishing, hunting, movies and photography. Women participated more in

card games, photography, fishing and movies. Women participated more in crafts, and hobbies, than men, but general interest was low. Anderson (1959) was concerned with leisure activities of women only. She concluded that first year women students of Education participate primarily in individual sports and in the dance. There was very little participation in outing activities, reading, and art. The least amount of participation was found on the parts of clubs and societies, but women indicated their intention to join more clubs during their second year.

Rosenberger (1957) introduces occupational differences and their relation toward leisure involvement. He presents a three-fold value orientation: people-oriented, extrinsic-reward-oriented, and self-expression-oriented. This author claims that under the first heading are people in social work, medicine, and teaching; under the second one are people in real estate, finance, hotels, sales and promotion; under the third one are those in art, drama, journalism and architecture. Expressive or creative people respond immediately to knowledge; object-oriented people to symbol or status, and people-oriented to controls that stem from conformity. Mori (1966) analyzed factors influencing the motivation for becoming a teacher. He stated that favorable attitudes toward the economic, interpersonal and ethical values of teaching motivated the individuals positively to become teachers. Lewis (1968) lists the factors influencing the outdoor education: philosophical, leadership, movement, fiscal, legislation,

social and cultural needs. Keith (1962) in his study of the leisure physical activities of teachers concluded, that most teachers participated very infrequently. Health and physical education teachers were more active in their leisure, than others, and men participated more frequently than did women.

V. SUMMARY

The assumptions of social scientists are presumably based upon a systematic knowledge of the world as well as upon knowledge of self. Kaplan (1960:27) has summarized these efforts by stating that they stress the needs for belonging and for individuality. These needs differentiate between the multifunctional purposes in behavior, the multidimensional effects of behavior, and indices of behavioral consequences. They view activities and create objects as projections of the person.

In this study the following ideas and findings will be incorporated and explored:

1. An individualistic approach and assessment of leisure activity. According to this concept of leisure, work and leisure are not necessarily antithetical. The same activity can be work for one and leisure for another.

2. Brightbill's (1966) and Aristotle's concept of leisure, i.e., the "possiblity to choose" and the "state of being free". Brightbill uses the term "discretionary time", and Aristotle "freedom" and "necessity". 'Freedom' includes

the ability to choose, and 'necessity' entails the sense of responsibility. This is also an existential approach. Since, by definition, man is a finite being, freedom without limitations would be a meaningless concept.

3. Kaplan's (1960:26) typology of leisure activities: Sociability, Association, Game, Art, Movement, and Immobility.

4. The statement by the Montmorency Conference on Leisure (1969:104), that an educational program "must develop a national conscience regarding recreation and open space development... The Indian concept of land as a trust for human development rather than for economic exploitation has much to recommend it."

5. Hobart's analysis of the data collected during a survey in the province of Alberta in 1968-69. It is not sufficient enough to adopt U.S.A. findings and apply them to a Canadian environment.

CHAPTER III

METHODOLOGY

I. THE SUBJECTS

Two hundred students were drawn from the faculties of Physical Education, Arts, and Science at the University of Alberta during the academic year of 1972-73 to serve as subjects for this study. They were undergraduate students in their first, second, third, and fourth years at the university. The subjects were designated in terms of three kinds of group. First, as main groups, they were divided for comparison on the basis of sex, i.e., 100 males (M) and 100 females (F). Secondly, they were categorized as being teaching oriented (T) or non-teaching oriented (N) students, and these groupings consisted of 50 females and 50 males, respectively. In order to explore any possible interactions based on both sex and teaching orientation, a further sub-grouping was utilized. On this level of the study, four sub-groups were made up of 50 teaching oriented males (TM), 50 teaching oriented females (TF), 50 non-teaching oriented males (NM), and 50 non-teaching oriented females (NF). In each of these groups the make-up consisted of 17 Physical Education students, 17 Arts students, and 16 Science students.

II. THE INSTRUMENT

The questionnaire entitled the "Leisure Involvement Survey" (see Appendix A) dealt with three major areas: (1) basic information about the subjects, (2) their leisure activities, and (3) evaluation of their leisure activities.

Basic academic information about the subjects was obtained in order to form subgroups.

The leisure activities for this study were derived from a list of activities presented in "Recreation in the Coaldale Area" (1970:Appendix) as a part of a survey among Alberta residents. This survey investigated interests, activities, and opportunities. For the purpose of this study a few activities from this survey were excluded, and a few more included. The 55 leisure activities drawn were divided into five categories: Outdoor Activities (No. 1-20), Sports Activities (No. 21-29), Cultural Activities (No. 30-41), Social Activities (No. 42-50), and Associative Activities (No. 51-55). In each category a space was left for additional activities in which subjects might participate.

After reviewing the relevant literature and research, five criterion variables were selected as being important relevant phenomena related to leisure activities. These were designated: Intellect, Aesthetics, Creativity, Sociability, and Physical Activity. In assigning these five criterion variables to leisure activities, 12 activities were selected as being maximally loaded on each of these criterion variables. This was done because some of the acti-

vities could be present as answers to more than one of the questions: the three most often done activities in summer, the three most often done activities in winter, the three most enjoyable activities in the summer, and the three most enjoyable activities in winter.

In spite of the fact that this study was limited to group differences, the questionnaire "Leisure Involvement Survey" is based on a strictly subjective, individualistic approach.

III. PROCEDURE

As a pretest, the "Leisure Involvement Survey" was administered to 25 students at the University of Alberta. The response rate was 100%. The pretest was followed by an interview, and it was found, that the questions were not ambiguous, did not duplicate themselves, and were not influencing questions. In this pretest, the instrument appeared as an easily understandable tool, and, therefore, no changes were made. The questionnaire was then administered to 400 student subjects during lectures attended by Physical Education, Arts, and Science students at the University of Alberta. Two hundred subjects assigned to four sub-groups were then randomly selected.

IV. TREATMENT OF THE DATA

In testing the hypotheses of this study, the following

factors were seen as having major importance:

1. The amount of involvement in all activities.

2. The amount of activities in each category.

3. The sequence of the most often done activities.

4. The sequence of the most enjoyable activities.

5. The importance of the five selected criterion variables for the most often done activities.

6. The importance of the five selected criterion variables for the most enjoyable activities.

The analysis of the data consisted of determining the significance of the difference between the mean responses to the above mentioned questions from three levels of groups already described.

The statistical analyses of the significance of difference between the mean responses attained from these groups and subgroups were produced by five programs:

1. T(t)-tests were used to test for differences in the total number of activities the subjects were engaged in, and for differences in the amounts of activities for each of the five categories.

2. Chi-square was used to test for differences in the relative occurrence of each of the five categories between the groups and subgroups mentioned above. Summer and winter activities were combined for: (a) the three top activities most often done, and (b) the top three activities most enjoyed.

3. Kendal's Tau was used to determine, whether or not

group membership is related to the ranking given for each selected criterion variable with respect to: (a) the top three activities most often done, and (b) the top three activities most enjoyed.

4. Chi-square was used to determine whether or not the activities most often done are also the ones most enjoyed.

5. Kendal's Tau was used to determine whether or not the relationship exists between the leisure activities most often done and the activities most enjoyed as for the rank given to the five selected criterion variables.

CHAPTER IV

RESULTS AND DISCUSSION

This chapter is organized into four sections: the first section deals with the results of the amount of the leisure activities students participate in. The second deals with the frequence of participation in leisure activities and the importance of the selected criterion variables placed upon the three most often done leisure activities. The third deals with the most enjoyable leisure activities, and the importance of the selected criterion variables placed upon them. The fourth section deals with results from comparisons between the most often done and the most enjoyable activities. Each section is divided into two parts, results and discussion. Tables are included to show comparisons between the main groups of Males (M), Females (F), Teaching oriented students (T) and Non-teaching oriented students (N); as well as between the subgroups of Teaching oriented males (TM), Non-teaching oriented males (NM), Teaching oriented females (TF), and Non-teaching oriented females (NF). Unless otherwise stated, the alpha rejection level is 0.05 for all the statistical tests. In the discussions, information is also provided on the stated hypotheses, which were tested by means of the statistical analyses presented in the first part of each section.

I. LEISURE INVOLVEMENT: THE AMOUNT OF LEISURE ACTIVITIES STUDENTS PARTICIPATE IN

Results

Males vs. Females (M vs. F). The data showed significant differences between the responses of males and females on two categories of leisure activities (Table 1). Males and females differed in frequency of participation in leisure activities which were assigned to sports and cultural categories. The significant differences indicated that: (a) the sports involvement of males was higher than that of females, and (b) cultural involvement was lower for males than for females. The non-significant differences appeared in the categories of outdoor activities, social activities, and associative activities. The total amount considered all the leisure activities together and showed no significant differences between males and females.

Teaching-oriented vs. Non-teaching-oriented (T vs. N). The significant differences between the responses of T and N appeared in the category of social activities only (Table 2). T scored higher than N. The differences in responses of all four other categories of leisure activities, as well as the total amount of all activities, were non-significant.

Subgroups. The data obtained from the four pairs of subgroups, Teaching-oriented Males vs. Non-teaching oriented Males (TM vs. NM), Teaching-oriented Females vs. Non-teaching-

TABLE 1

T(t) TEST OF DIFFERENCES BETWEEN MEANS OF LEISURE INVOLVEMENT OF MALES AND FEMALES

	Males		Females			
Variable	Mean	S.D.	Mean	S.D.	T(t)-Value	Prob. 2-Tail
Outdoor Activities	0.46	0.16	0.49	0.16	1.20	0.232
Sports Activities	0.31	0.20	0.22	0.19	3.45	0.001*
Cultural Activities	0.46	0.13	0.52	0.17	2.69	0.008*
Social Activities	0.41	0.21	0.45	0.21	1.24	0.215
Associative Activities	0.05	0.10	0.07	0.13	0.99	0.324
Total	0.40	0.11	0.42	0.11	1.39	0.165

* - $P < 0.05$.

TABLE 2

T(t) TEST OF DIFFERENCES BETWEEN MEANS OF LEISURE INVOLVEMENT OF TEACHING AND NON-TEACHING ORIENTED STUDENTS

	T		N			
Variable	Mean	S.D.	Mean	S.D.	T(t)-Value	Prob. 2-Tail
Outdoor Activities	0.49	0.16	0.46	0.16	1.28	0.202
Sports Activities	0.27	0.20	0.26	0.20	0.29	0.769
Cultural Activities	0.49	0.15	0.48	0.15	0.10	0.920
Social Activities	0.46	0.21	0.40	0.20	2.20	0.029*
Associative Activities	0.07	0.12	0.05	0.11	1.24	0.217
Total	0.42	0.11	0.40	0.11	1.56	0.121

* - $P < 0.05$.
T - Teaching-oriented students.
N - Non-teaching-oriented students.

oriented Females (TF vs. NF), Teaching-oriented Males vs. Teaching-oriented Females (TM vs. TF), and Non-teaching-oriented Males vs. Non-teaching-oriented Females (NM vs. NF), ratified the results of major groups. The data showed significant differences between the responses of: (a) TM and NM on the category of social activities, where TM scored higher than NM, (Table 3); (b) TM and TF on the amount of activities in the categories of sport and culture; sports involvement for TM was higher than that of TF, whereas the cultural involvement was higher for TF than for TM (Table 5); (c) NM and NF on the involvement in sports activities, which was higher for NM than for NF (Table 6). There were no significant differences in leisure involvement between TF and NF (Table 4). Non-significant differences occurred in the rest of the categories of leisure activities for each pair of subgroups, as well as the involvement in the total number of leisure activities for these pairs of subgroups.

Discussion

Interestingly enough, females' participation in leisure activities, with the exception of sports activities, was higher than that of males, although the differences rarely reached the level of significance. The significant differences ($P < 0.05$) appeared for the category of sports, and for that of the cultural activities only. The results gained by comparing two pairs of subgroups, TM vs. TF and NM vs. NF were identical to the responses of the two above

TABLE 3

T(t) TEST OF DIFFERENCES BETWEEN MEANS OF LEISURE INVOLVEMENT OF TEACHING AND NON-TEACHING ORIENTED MALES

	TM		NM			
Variable	Mean	S.D.	Mean	S.D.	T(t)-Value	Prob. 2-Tail
Outdoor Activities	0.48	0.16	0.44	0.16	1.31	0.193
Sports Activities	0.31	0.21	0.31	0.19	0.17	0.868
Cultural Activities	0.46	0.12	0.47	0.13	0.34	0.737
Social Activities	0.46	0.22	0.37	0.18	2.29	0.024*
Associative Activities	0.06	0.10	0.04	0.10	1.00	0.320
Total	0.42	0.11	0.39	0.10	1.46	0.149

* - $P < 0.05$.
TM - Teaching-oriented Males.
NM - Non-teaching-oriented Males.

TABLE 4

T(t) TEST OF DIFFERENCES BETWEEN MEANS OF LEISURE INVOLVEMENT OF TEACHING AND NON-TEACHING ORIENTED FEMALES

	TF		NF			
Variable	Mean	S.D.	Mean	S.D.	T(t)-Value	Prob. 2-Tail
Outdoor Activities	0.50	0.17	0.48	0.15	0.49	0.627
Sports Activities	0.22	0.17	0.21	0.21	0.26	0.794
Cultural Activities	0.53	0.17	0.51	0.16	0.38	0.703
Social Activities	0.47	0.21	0.43	0.21	0.85	0.398
Associative Activities	0.08	0.13	0.06	0.12	0.78	0.435
Total	0.43	0.12	0.41	0.11	0.77	0.442

* - $P < 0.05$
TF - Teaching-oriented Females.
NF - Non-teaching-oriented Females.

TABLE 5

T(t) TEST OF DIFFERENCES BETWEEN MEANS OF LEISURE INVOLVEMENT OF TEACHING ORIENTED MALES AND FEMALES

Variable	TM		TF		T(t)-Value	Prob. 2-Tail
	Mean	S.D.	Mean	S.D.		
Outdoor Activities	0.48	0.16	0.50	0.17	0.41	0.680
Sports Activities	0.31	0.21	0.22	0.17	2.43	0.017*
Cultural Activities	0.46	0.12	0.53	0.17	2.23	0.028*
Social Activities	0.46	0.22	0.47	0.21	0.18	0.861
Associative Activities	0.06	0.10	0.08	0.13	0.68	0.500
Total	0.42	0.11	0.43	0.12	0.65	0.514

* - $P < 0.05$.
TM - Teaching-oriented Males.
TF - Teaching-oriented Females.

TABLE 6

T(t) TEST OF DIFFERENCES BETWEEN MEANS OF LEISURE INVOLVEMENT OF NON-TEACHING ORIENTED MALES AND FEMALES

	NM		NF			
Variable	Mean	S.D.	Mean	S.D.	T(t)-Value	Prob. 2-Tail
Outdoor Activities	0.44	0.16	0.48	0.15	1.30	0.195
Sports Activities	0.31	0.19	0.21	0.21	2.42	0.017*
Cultural Activities	0.47	0.13	0.51	0.16	1.55	0.126
Social Activities	0.37	0.18	0.43	0.21	1.67	0.098
Associative Activities	0.04	0.10	0.06	0.12	0.72	0.472
Total	0.39	0.10	0.41	0.11	1.35	0.181

* - P < .005.
NM - Non-teaching-oriented Males.
NF - Non-teaching-oriented Females.

mentioned main groups.

Correlations among the mean scores on leisure involvement for T and N showed higher participation in the total amount of leisure activities, as well as in each category of leisure activities for T, than for N; however, the differences were only on the non-significant level. The results of the two pairs of subgroups assigned to these two main groups were identical, with the exception of responses to activities of the cultural category in the intercorrelation for TM and NM. Participation in cultural activities was greater for NM than for TM. However, existing significant differences were in minority to the non-significant differences.

The null hypotheses supposed, that there would be no significant differences in the leisure involvement between males and females, and between teaching oriented and non-teaching oriented students. On the basis of the analysis of the collected data, both null hypotheses were confirmed.

II. THE FREQUENCY OF PARTICIPATION IN LEISURE ACTIVITIES AND THE FIVE SELECTED CRITERION VARIABLES ASSIGNED TO THE MOST OFTEN DONE ACTIVITIES

Results

Table 7 shows a comparison of the frequency of participation in the categories of leisure activities for all pairs

TABLE 7

CHI-SQUARE ANALYSIS OF THE BIVARIATE FREQUENCIES OF THE CATEGORIES OF LEISURE ACTIVITIES FOR THE PARTICIPATION OF ALL GROUPS AND SUBGROUPS

	Category						
Group	Out-door	Sports	Cul-tural	Social	Associ-ative	Total	Chi-Squared
M	283	79	156	77	5	600	
F	297	48	161	87	7	600	
Total	580	127	317	164	12	1200	8.927
T	306	68	142	75	6	600	
N	274	59	172	89	6	600	
Total	580	127	317	164	12	1200	5.898
TM	152	40	70	35	3	300	
TF	154	28	75	40	3	300	
Total	306	68	145	75	6	600	2.636
NM	131	39	86	42	2	300	
NF	143	50	86	47	4	300	
Total	274	59	172	89	6	600	7.592
TM	152	40	70	35	3	300	
NM	131	39	86	42	2	300	
Total	283	79	156	77	5	600	4.048
TF	154	28	75	40	3	300	
NF	143	20	86	47	4	300	
Total	297	48	161	87	7	600	3.198

P (Chi-Square > 9.488) < 0.05.

of groups and subgroups. The differences in the distribution of each of the pairs were not found to be significant.

Males vs. Females (M vs. F). As for males, the most frequently done leisure activities were outdoor activities, followed by cultural and sports activities. The sequence of the frequency of participation in leisure activities of females was outdoor activities, cultural activities, and social activities (Table 8). The differences in the percentage distributions in the five selected criterion variables, i.e., Intellect (Table 9), Aesthetics (Table 10), Creativity (Table 11), Sociability (Table 12), and Physical Activity (Table 13), for activities most often done, were not found to be significant, except for the creativity variable. Males tended to spend a larger proportion of their time on creative activities, than did females.

Teaching oriented vs. Non-teaching oriented students. For both groups the sequence of frequency of participation in leisure activities was identical and appeared in the following order: Outdoor activities, cultural activities, and social activities (Table 8). Also the percentage distribution of the five selected criterion variables showed no significant differences (Tables 9-13).

Subgroups. The sequence of frequency of participation in leisure activities was identical for the subgroups of non-teaching oriented males (NM), teaching oriented females (TF), and non-teaching oriented females (NF), with outdoor activities as first, cultural activities as second, and

TABLE 8

SEQUENCE OF THE CATEGORIES OF LEISURE ACTIVITIES, ACCORDING TO THE FREQUENCY OF PARTICIPATION FOR ALL GROUPS AND SUBGROUPS

	Category				
Group	Outdoor	Sports	Cultural	Social	Associative
M	1	3	2	4	5
F	1	4	2	3	5
T	1	4	2	3	5
N	1	4	2	3	5
TM	1	3	2	4	5
NM	1	4	2	3	5
TF	1	4	2	3	5
NF	1	4	2	3	5

TABLE 9

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE FIRST SELECTED CRITERION VARIABLE - INTELLECT - ASSIGNED TO THE THREE MOST OFTEN DONE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	162	338	65	28	7	600	
F	224	262	76	29	9	600	
Total	386	600	141	57	16	1200	-0.035
T	208	293	71	24	4	600	
N	178	307	70	33	12	600	
Total	386	600	141	57	16	1200	0.032
TM	77	176	32	14	1	300	
TF	131	117	39	10	3	300	
Total	208	293	71	24	4	600	-0.071*
NM	85	162	33	14	6	300	
NF	93	145	37	19	6	300	
Total	178	307	70	33	12	600	0.000
TM	77	176	32	14	1	300	
NM	85	162	33	14	6	300	
Total	162	338	65	28	7	600	-0.003
TF	131	117	39	10	3	300	
NF	93	145	37	19	6	300	
Total	224	262	76	29	9	600	0.065*

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

TABLE 10

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE SECOND SELECTED CRITERION VARIABLE - AESTHETICS - ASSIGNED TO THE THREE MOST OFTEN DONE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	186	305	84	20	4	600	
F	211	262	94	27	6	600	
Total	397	567	178	47	10	1200	-0.005
T	213	263	90	27	6	600	
N	184	304	88	20	4	600	
Total	397	567	178	47	10	1200	0.012
TM	87	151	44	14	3	300	
TF	126	112	46	13	3	300	
Total	213	263	90	27	6	600	-0.051
NM	99	154	40	6	1	300	
NF	85	150	48	14	3	300	
Total	184	304	88	20	4	600	0.042
TM	87	151	44	14	3	300	
NM	99	154	40	6	1	300	
Total	186	305	84	20	4	600	-0.034
TF	126	112	46	13	3	300	
NF	85	150	48	14	3	300	
Total	211	262	94	27	6	600	0.057*

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

TABLE 11

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE THIRD SELECTED CRITERION VARIABLE - CREATIVITY - ASSIGNED TO THE THREE MOST OFTEN DONE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	245	316	24	14	1	600	
F	302	267	23	5	3	600	
Total	547	583	47	19	4	1200	-0.049*
T	251	318	17	12	2	600	
N	296	265	30	7	2	600	
Total	547	583	47	19	4	1200	-0.032
TM	101	183	7	9	0	300	
TF	150	135	10	3	2	300	
Total	251	318	17	12	2	600	-0.079*
NM	144	133	17	5	1	300	
NF	152	132	13	2	1	300	
Total	296	265	30	7	2	600	-0.019
TM	101	183	7	9	0	300	
NM	144	133	17	5	1	300	
Total	245	316	24	14	1	600	-0.061
TF	150	135	10	3	2	300	
NF	152	132	13	2	1	300	
Total	302	267	23	5	3	600	-0.003

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

TABLE 12

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE FOURTH SELECTED CRITERION VARIABLE - SOCIABILITY - ASSIGNED TO THE THREE MOST OFTEN DONE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	136	321	91	44	8	600	
F	156	275	112	46	11	600	
Total	292	596	203	90	19	1200	0.003
T	136	307	103	45	9	600	
N	156	289	100	45	10	600	
Total	292	596	203	90	19	1200	-0.013
TM	67	167	42	23	1	300	
TF	69	140	61	22	8	300	
Total	136	307	103	45	9	600	0.030
NM	69	154	49	21	7	300	
NF	87	135	51	24	3	300	
Total	156	289	100	45	10	600	-0.022
TM	67	167	42	23	1	300	
NM	69	154	49	21	7	300	
Total	136	321	91	44	8	600	0.012
TF	69	140	61	22	8	300	
NF	87	135	51	24	3	300	
Total	156	275	112	46	11	600	-0.038

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

TABLE 13

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE FIFTH SELECTED CRITERION VARIABLE - PHYSICAL ACTIVITY - ASSIGNED TO THE THREE MOST OFTEN DONE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	202	187	139	67	5	600	
F	238	159	124	73	6	600	
Total	440	346	263	140	11	1200	-0.021
T	209	172	144	67	8	600	
N	231	174	119	73	3	600	
Total	440	346	263	140	11	1200	-0.022
TM	98	99	73	27	3	300	
TF	111	73	71	40	5	300	
Total	209	172	144	67	8	600	0.007
NM	104	88	66	40	2	300	
NF	127	86	53	33	1	300	
Total	231	174	119	73	3	600	-0.048
TM	98	99	73	27	3	300	
NM	104	88	66	40	2	300	
Total	202	187	139	67	5	600	0.005
TF	111	73	71	40	5	300	
NF	127	86	53	33	1	300	
Total	238	159	124	73	6	600	-0.047

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

social activities as the most often done activities. The subgroup of teaching oriented males (TM) differed in that sports activities replaced social activities as the third preference (Table 8). As for the percentage distribution of the five selected criterion variables there appeared a few significant differences. The data showed significant differences between the responses of TM and TF on the following two variables: TM tended to respond higher on the variables of intellect and creativity, than did TF (Tables and 11). TF and NF differed significantly on the variables of intellect and aesthetics with TF tending to respond to the lower percentages (Tables 9 and 10). The pair of TM versus NM showed a negative relationship on the variable of creativity (Table 11).

Discussion

The above data showed no significant differences between the groups and subgroups on the frequency of participation in the categories of leisure activities (Table 7). In Table 8 it can be seen, that outdoor activities were ranked by each group and subgroup as the most frequently done activities, cultural activities were second, and associative activities were fifth. The differences in ranking appeared in the categories of sports and sociability. Females participated more frequently in social activities, than did males, and teaching-oriented males were engaged primarily in sports activities.

The null hypotheses stated that there would be no significant differences in the sequence of the most often done activities between (a) males and females, and (b) teaching oriented and non-teaching oriented. On the basis of the analysis of data, both null hypotheses were confirmed.

The five selected criterion variables assigned to the three most frequently done leisure activities in summer and in winter, and which were expressed in terms of categories, also showed few significant differences. The highest number of the significant differences occurred on the variable of creativity (Table 11). Males valued creativity higher, than did females, with TM higher than NM. The reason for the lack of significant differences between the main groups on the variable of intellect was illuminated by the significant differences between the pairs of subgroups of TM vs. TF and TF vs. NF (Table 9). TM tended to respond higher to the intellect, than did TF, and NF responded significantly higher, than did TF. NF also responded higher on the variable of aesthetics than did TF (Table 10). On the variables of sociability and physical activity there were no significant differences for any of the groups or subgroups.

The null hypotheses supposed, that there would be no significant differences in the importance of the five selected criterion variables between (a) teaching and non-teaching oriented students, and (b) between males and females, for the most often done activities. Since the significance of differences was noted in a few analyses of

subgroups only, the null hypotheses, as stated, was confirmed.

III. THE FREQUENCY OF THE MOST ENJOYABLE LEISURE ACTIVITIES, AND THE FIVE SELECTED CRITERION VARIABLES PLACED UPON THEM

Results

The data showed no significant differences between the responses concerning frequency of the most enjoyable leisure activities with the exception of comparison of males and females (Table 14).

Males vs. Females (M vs. F). The significant difference between the responses of M and F in the frequency of the most enjoyable activities was due mainly to the differences existing in the sports category (Table 14). Table 15 shows the sequence of the three most enjoyable activities, which was, for males, outdoor activities as first, cultural activities as second, and sports activities as third (Table 15). While the first two categories appeared in the same order for females, the third most enjoyable activities were those assigned to the social category. As for the five selected criterion variables, i.e., intellect (Table 16), aesthetics (Table 17), creativity (Table 18), sociability (Table 19), and physical activity (Table 20), the significance of the difference was found only for the intellect variable. The

TABLE 14

CHI-SQUARE ANALYSIS OF THE BIVARATE FREQUENCIES OF THE MOST ENJOYABLE CATEGORIES OF LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

	Category						
Group	Out-door	Sports	Cul-tural	Social	Associ-ative	Total	Chi-Squared
M	314	90	128	65	3	600	
F	344	54	128	70	4	600	
Total	658	144	256	135	7	1200	10.696*
T	334	69	127	66	4	600	
N	324	75	129	69	3	600	
Total	658	144	256	135	7	1200	0.627
TM	162	44	60	32	2	300	
TF	172	25	67	34	2	300	
Total	334	69	127	66	4	600	5.978
NM	152	46	68	33	1	300	
NF	172	29	61	36	2	300	
Total	324	75	129	69	3	600	5.932
TM	162	44	60	32	2	300	
NM	152	46	68	33	1	300	
Total	314	90	128	65	3	600	1.212
TF	172	25	67	34	2	300	
NF	172	29	61	36	2	300	
Total	344	54	128	70	4	600	0.635

* P(Chi-Square > 9.488) < 0.05.

TABLE 15

SEQUENCE OF THE CATEGORIES OF LEISURE ACTIVITIES, ACCORDING TO THE ENJOYMENT OF ALL GROUPS AND SUBGROUPS

	Category				
Group	Outdoor	Sports	Cultural	Social	Associative
M	1	3	2	4	5
F	1	4	2	3	5
T	1	3	2	4	5
N	1	3	2	4	5
TM	1	3	2	4	5
NM	1	3	2	4	5
TF	1	4	2	3	5
NF	1	4	2	3	5

TABLE 16

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE FIRST SELECTED CRITERION VARIABLE - INTELLECT - ASSIGNED TO THE THREE MOST ENJOYABLE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	175	336	62	20	7	600	
F	263	256	58	16	7	600	
Total	438	592	120	36	14	1200	-0.067*
T	223	297	61	17	2	600	
N	215	295	59	19	12	600	
Total	438	592	120	36	14	1200	0.012
TM	80	182	29	9	0	300	
TF	143	115	32	8	2	300	
Total	223	297	61	17	2	600	-0.087*
NM	95	154	33	11	7	300	
NF	120	141	26	8	5	300	
Total	215	295	59	19	12	600	-0.049
TM	80	182	29	9	0	300	
NM	95	154	33	11	7	300	
Total	175	336	62	20	7	600	-0.004
TF	143	115	32	8	2	300	
NF	120	141	26	8	5	300	
Total	263	256	58	16	7	600	0.031

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

TABLE 17

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE SECOND SELECTED CRITERION VARIABLE - AESTHETICS - ASSIGNED TO THE THREE MOST ENJOYABLE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	188	302	86	21	3	600	
F	186	284	95	31	4	600	
Total	374	586	181	52	7	1200	0.014
T	193	292	89	23	3	600	
N	181	294	92	29	4	600	
Total	374	586	181	52	7	1200	0.015
TM	86	154	44	14	2	300	
TF	107	138	45	9	1	300	
Total	193	292	89	23	3	600	-0.036
NM	102	148	42	7	1	300	
NF	79	146	50	22	3	300	
Total	181	294	92	29	4	600	0.063*
TM	86	154	44	14	2	300	
NM	102	148	42	7	1	300	
Total	188	302	86	21	3	600	-0.035
TF	107	138	45	9	1	300	
NF	79	146	50	22	3	300	
Total	186	284	95	31	4	600	0.063

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

TABLE 18

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE THIRD SELECTED CRITERION VARIABLE - CREATIVITY - ASSIGNED TO THE THREE MOST ENJOYABLE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	234	325	24	17	0	600	
F	275	287	28	6	4	600	
Total	509	612	52	23	4	1200	-0.034
T	241	333	14	12	0	600	
N	268	279	38	11	4	600	
Total	509	612	52	23	4	1200	-0.008
TM	104	180	7	9	0	300	
TF	137	153	7	3	0	300	
Total	241	333	14	12	0	600	-0.059*
NM	130	145	17	8	0	300	
NF	138	134	21	3	4	300	
Total	268	279	38	11	4	600	-0.009
TM	104	180	7	9	0	300	
NM	130	145	17	8	0	300	
Total	234	325	24	17	0	600	-0.032
TF	137	153	7	3	0	300	
NF	138	134	21	3	4	300	
Total	275	287	28	6	4	600	0.015

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

TABLE 19

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE FOURTH SELECTED CRITERION VARIABLE - SOCIABILITY - ASSIGNED TO THE THREE MOST ENJOYABLE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	126	341	94	36	3	600	
F	156	304	100	33	7	600	
Total	282	645	194	69	10	1200	-0.015
T	129	324	107	34	6	600	
N	153	321	87	35	4	600	
Total	282	645	194	69	10	1200	-0.028
TM	61	171	50	18	0	300	
TF	68	153	57	16	6	300	
Total	129	324	107	34	6	600	0.007
NM	65	170	44	18	3	300	
NF	88	151	43	17	1	300	
Total	153	321	87	35	4	600	-0.036
TM	61	171	50	18	0	300	
NM	65	170	44	18	3	300	
Total	126	341	94	36	3	600	-0.007
TF	68	153	57	16	6	300	
NF	88	151	43	17	1	300	
Total	156	304	100	33	7	600	-0.048

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

TABLE 20

KENDAL'S TAU(S) ANALYSIS OF THE PERCENTAGE DISTRIBUTION OF THE FIFTH SELECTED CRITERION VARIABLE - PHYSICAL ACTIVITY - ASSIGNED TO THE THREE MOST ENJOYABLE CATEGORIES OF THE LEISURE ACTIVITIES FOR ALL GROUPS AND SUBGROUPS

Group	0%	1-35%	36-64%	65-99%	100%	Total	Tau-A
M	171	189	161	75	4	600	
F	192	168	146	87	7	600	
Total	363	357	307	162	11	1200	-0.005
T	180	169	164	79	8	600	
N	183	188	143	83	3	600	
Total	363	357	307	162	11	1200	-0.013
TM	82	101	83	32	2	300	
TF	98	68	81	47	6	300	
Total	180	169	164	79	8	600	0.014
NM	89	88	78	43	2	300	
NF	94	100	65	40	1	300	
Total	183	188	143	83	3	600	-0.024
TM	82	101	83	32	2	300	
NM	89	88	78	43	2	300	
Total	171	189	161	75	4	600	0.006
TF	98	68	81	47	6	300	
NF	94	100	65	40	1	300	
Total	192	168	146	87	7	600	-0.030

* P(Tau-A > 0.054; N=600) < 0.05.
* P(Tau-A > 0.038; N=1200) < 0.05.

negative relationship showed, that males tended to respond higher than did females (Table 16).

Teaching oriented vs. Non-teaching oriented (T vs. N). The data showed no significant differences between the responses of T and N on both the frequency of the most enjoyable leisure activities and the five selected criterion variables assigned to them (Tables 14-20). Also the sequence of the most enjoyable leisure activities was absolutely identical with the outdoor category ranked as a first, cultural as a second, and sports category as a third (Table 15).

Subgroups. The data analysis obtained from the subgroups ratified results of major groups as for the frequency of the most enjoyable activities (Tables 14 and 15). All four subgroups of TM, NM, TF, and NF, ranked the outdoor category as a first, and the cultural category as a second one. Females, both teaching and non-teaching oriented, gave the social category as a third most enjoyable activity, whereas males gave the sports category as a third one. A few significant differences in the area of the five selected criterion variables assigned to the most enjoyable activities existed between the following subgroups: TM appeared to respond higher to the variables of intellect and creativity, than TF did (Tables 16 and 18), and NF responded higher to the variable of aesthetics, than NM and TF did (Table 17).

Discussion

The analysis of the data dealt with the significance of the difference found in the sequence of the most enjoyable leisure activities between sexes, but not between the teaching oriented or non-teaching oriented. Also, all existing significant differences found in the analysis of each selected criterion variable were in the extreme minority.

The null hypotheses supposed that there would be no significant differences in the sequence of the most enjoyable leisure activities between (a) males and females, and (b) teaching oriented and non-teaching oriented students. Since the significance of difference was noted between males and females, the first null hypothesis was rejected, whereas the second hypothesis was confirmed.

As for the five selected criterion variables, the data analysis of the sociability and physical activity showed no significant differences between any of the pairs of groups or subgroups. Males responded significantly higher on the variable of intellect, than did females, whereas the significant differences on the variables of aesthetics and creativity appeared for a few subgroups only, and did not influence in general the results of the main groups.

The null hypotheses supposed, that there would be no significant differences regarding the importance of the five selected criterion variables between (a) males and females, and (b) teaching oriented and non-teaching oriented students. On the basis of the analysis of the data, both null hypo-

theses were confirmed, because the overall differences could not be proved on the basis of this study.

IV. COMPARISON OF THE THREE MOST OFTEN DONE AND THE THREE MOST ENJOYABLE LEISURE ACTIVITIES FOR EACH MAIN GROUP

Results

Sequence of the leisure activities. The data showed significant relationships between the responses on the most often done and the most enjoyable activities for each main group (Table 21). The sequence of the most often done activities and the most enjoyable activities differed beyond the 0.01 level of significance within all main groups of males, females, teaching oriented, and non-teaching oriented students. A significant Chi-square indicated that the people who enjoy one of the activities are also the ones who are doing that particular activity most often. Within each group, the people differed significantly in regard to participation in, and the enjoyment of, the different activities (Tables 7-13, pp. 36-43, and Tables 14-20, pp. 47-53).

Sequence of the five selected criterion variables. Table 22 shows the overall significant differences between the five selected criterion variables assigned to the most often done leisure activities and to the leisure activities most enjoyed for all the main groups. The sequence of the five selected criterion variables for the most often done

TABLE 21

CHI-SQUARE ANALYSIS OF BIVARIATE FREQUENCIES BETWEEN THE LEISURE ACTIVITIES MOST OFTEN DONE AND MOST ENJOYED FOR THE MAIN GROUPS

Group	Chi-Squared
M	334.056*
F	334.547*
T	386.563*
N	311.753*
Total	661.607*

* P(Chi-Square > 32.000) < 0.01

TABLE 22

KENDAL'S TAU(S) ANALYSIS OF BIVARIATE FREQUENCIES OF THE FIVE SELECTED CRITERION VARIABLES PLACED UPON THE MOST OFTEN DONE AND THE MOST ENJOYED ACTIVITIES FOR THE MAIN GROUPS

Group	Intel-lect	Aesthe-tics	Crea-tivity	Socia-bility	Physical Activity
M	0.165*	0.123*	0.180*	0.148*	0.123*
F	0.114*	0.135*	0.165*	0.141*	0.106*
T	0.146*	0.122*	0.176*	0.143*	0.132*
N	0.139*	0.136*	0.173*	0.144*	0.097*
Total	0.143*	0.129*	0.175*	0.144*	0.115*

* P(Tau-A > 0.029; N=3600) < 0.01.
* P(Tau-A > 0.002; N=7200) < 0.01.

activities and the most enjoyable activities were significantly associated, this was indicated by the 0.01 level of significance within each group.

Significant Kendal Tau indicated that within each group the people differed significantly to their overall percentage scores on the different selected criterion variables. People whose overall percentage scores on the particular selected criterion variables were the highest for the most often done, were also the highest ones for the most enjoyable activities.

Discussion

It was found, that the significant differences existed, not between the groups as such, but within each of the groups. Therefore, the differences are assumed to exist somewhere else; neither in the sex, nor in teaching or non-teaching orientation of students. These results confirm all the previous results in this kind of work; in all the previous studies the significant differences occurred only very rarely, and mostly they had no substantial influence on the sequence of activities, and on the sequence of selected criterion variables; if these significant differences occurred at all, they were rather partial ones. It is an interesting conclusion, that shows that each individual, regardless of the group to which he belongs, does often what he enjoys most.

The null hypotheses supposed, that there would be no significant differences between (a) the most often done and the most enjoyed leisure activities, and (b) the five selected

criterion variables assigned to the most often done and the most enjoyable leisure activities. Since the significant differences were not noted in these aspects, the null hypotheses, as stated, could not be rejected on the basis of the data obtained.

CHAPTER V

SUMMARY AND CONCLUSIONS

I. SUMMARY

The basic purpose of this study was to explore the leisure involvement of university students. Specifically, the survey dealt with students registered in the Faculties of Physical Education, Arts and Science. The groups were sampled on the basis of sex and teaching or non-teaching orientation.

The problem areas were identified and stated as a null hypotheses. They dealt with the amount of leisure activity, the most often done leisure activities, the most enjoyable leisure activities, and the loadings of five selected criterion variables placed upon these activities.

Hypotheses were tested for each group and subgroup, with the variables being coded according to scales established for the study. Frequency tables were constructed from these data and were used to calculate means, standard deviations, t-values, Chi-Squares and Kendal's Tau.

The analysis of data was completed by comparing groups and subgroups, the males with females, teaching oriented with non-teaching oriented students, teaching oriented males with teachigg oriented females, non-teaching oriented males

with non-teaching oriented females, teaching oriented males with non-teaching oriented males, and teaching oriented females with non-teaching oriented males.

II. CONCLUSIONS

On the basis of results from this study, the following conclusions were drawn:

1. There were no significant differences between males and females or between teaching oriented and non-teaching oriented students in the amount of participation in leisure activities.

2. There were no significant differences between males and females or between teaching oriented and non-teaching oriented students in the most often done leisure activities and the criterion variables assigned to them.

3. There were no significant differences between teaching oriented and non-teaching oriented students in the sequence of the most enjoyable activities and the selected criterion variables placed upon these activities.

4. There were significant differences between males and females in the sequence of the most enjoyable leisure activities.

5. There were no significant differences between males and females on the selected criterion variables assigned to the most enjoyable activities.

6. There were no significant differences between the

frequency of the most often done and most enjoyable activities for all main groups of males, females, teaching oriented, and non-teaching oriented students. However, significant differences existed within each group on these phenomena.

7. There were no significant differences between the five selected criterion variables assigned to the most often done and the most enjoyable leisure activities for males, females, teaching oriented, and non-teaching oriented students. However, significant differences on these phenomena existed within each group.

For all subjects, the most frequent participation existed in the areas of outdoor and cultural activities and the percentage distribution of the five selected criterion variables was spread rather equally throughout both the most often done and the most enjoyable activities. Although discrepancies existed between these activities, it seemed that students were easily able to satisfy their interests in terms of intellect, aesthetics, creativity, and sociability, and physical activity. The results of this study also showed that there were no overall significant differences between teaching oriented and non-teaching oriented students in terms of their leisure involvement.

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APPENDIX A

QUESTIONNAIRE

LEISURE INVOLVEMENT SURVEY

LEISURE INVOLVEMENT SURVEY

A. The Faculty of..... Year in school.....

Sex..... Age.....

B. Are you interested in a teaching or non-teaching career? (Circle one.)

C. This survey is concerned with the activities of students in their leisure time, i.e., not when sleeping, eating or working. Please check the things you do during your free time.

NO.	ACTIVITY	CHECK MARK
	OUTDOOR ACTIVITIES	
1	Participation in camping.	
2	Participation in fishing.	
3	Participation in hunting.	
4	Participation in bicycling.	
5	Participation in horseback riding.	
6	Participation in driving for pleasure.	
7	Participation in boating.	
8	Participation in hiking.	
9	Walking for pleasure.	
10	Sightseeing.	
11	Participation in swimming.	
12	Participation in climbing.	
13	Participation in water skiing.	
14	Participation in outdoor games.	

NO.	ACTIVITY	CHECK MARK
15	Participation in downhill skiing.	
16	Participation in cross country skiing.	
17	Participation in skating.	
18	Participation in tobogganing.	
19	Other (specify)	
20	Other (specify)	
	SPORTS ACTIVITIES	
21	Participation in track and field (running and jogging).	
22	Participation in ball games (soccer, football, volleyball, baseball, etc.).	
23	Participation in gymnastics.	
24	Participation in ice hockey.	
25	Participation in rowing.	
26	Participation in ski-racing.	
27	Other (specify).	
28	Other (specify).	
29	Other (specify).	
	CULTURAL ACTIVITIES	
30	Participation in arts.	
31	Participation in crafts.	
32	Participation in music.	
33	Participation in drama.	
34	Read.	
35	Attend concerts.	

NO.	ACTIVITY	CHECK MARK
36	Attend plays.	
37	Attend movies.	
38	Watch T.V.	
39	Listen to records.	
40	Other (specify).	
41	Other (specify).	
	SOCIAL ACTIVITIES	
42	Drink beer in bar or lounge.	
43	Go to dance.	
44	Visit or hang around with friends.	
45	Card games.	
46	Play with children.	
47	Volunteer community service (work with scouts, etc.).	
48	Work in civic improvement.	
49	Other (specify).	
50	Other (specify).	
	ASSOCIATIVE ACTIVITIES	
51	Clubs and association - Legion	
52	Kinsmen	
53	Mason	
54	Other (specify).	
55	Other (specify).	

D. 1.

(a) Of all these activities which three do you DO most often in the SUMMER? (Rank these.)

(b) About how much of your satisfaction in each of the following three activities derives from the intellectual, aesthetical, creative, social, and physical activity aspects? Respond in terms of percentages.

(a) (b)

NO.	NAME OF ACTIVITY	Intellect (%)	Aesthetics (%)	Creativity (%)	Sociability (%)	Phys. Act. (%)

2.

(a) Of all these activities which three do you DO most often in the WINTER? (Rank these.)

(b) About how much of your satisfaction in each of the following three activities derives from the intellectual, aesthetical, creative, social, and physical activity aspects? Respond in terms of percentages.

(a) (b)

NO.	NAME OF ACTIVITY	Intellect (%)	Aesthetics (%)	Creativity (%)	Sociability (%)	Phys. Act. (%)

3.

(a) Of all these activities which three do you find most ENJOYABLE in the SUMMER? (Rank these.)

(b) About how much of your enjoyment in each of the following three activities derives from the intellectual, aesthetical, creative, social, and physical activity aspects? Respond in terms of percentage.

(a) NO.	NAME OF ACTIVITY	(b) Intellect (%)	Aesthetics (%)	Creativity (%)	Sociability (%)	Phys. Act. (%)

4.

(a) Of all these activities which three do you find most ENJOYABLE in the WINTER? (Rank these.)

(b) About how much of your enjoyment in each of the following three activities derives from the intellectual, aesthetical, creative, social, and physical activity aspects? Respond in terms of percentage.

(a) NO.	NAME OF ACTIVITY	(b) Intellect (%)	Aesthetics (%)	Creativity (%)	Sociability (%)	Phys. Act. (%)